

Application No. 09/858,385
Amendment dated June 9, 2006
Reply to Office Action of March 6, 2006

REMARKS

The Applicant has now had an opportunity to carefully consider the remarks presented in the Office Action mailed March 6, 2006. Reexamination and reconsideration of the application are respectfully requested. Claims 1-11, 36 and 37 remain in the application. Claims 12-35 have been canceled.

The Office Action

Claims 1, 2 and 8-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tonkin (U.S. Patent Application 2005/0015392) in view of Allen (U.S. Patent No. 6,549,299) and in further view of Matsuo (U.S. Patent No. 6,775,729).

Claims 3-7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tonkin, in view of Allen, in view of Matsuo, and further in view of Yankovich (U.S. Patent No. 6,704,906).

The Claims Distinguish over the References of Record

Claim 1 now calls for retrieving permanent, temporary, and capability constraints of printers and finishers and selecting one of a set of document forms that conforms to the permanent, temporary, and capability restraints of the printers and finishers to apply to the document. Matsuo fails to teach this more detailed consideration of device constraints.

Capability constraints describe the function of the machine. This could be as general as machine 1 is a printer, machine 2 is a finisher, etc. With specific regard to finishers, the capability constraints may describe the specific function of each finisher. For example, finisher 1 folds, finisher 2 glues, finisher 3 staples, and finisher 4 binds. The capability constraints describe what the finisher is designed to accomplish. So if a certain finishing job requires folding and stapling, the job would be routed to finisher 1 and 3, but not 2 and 4.

Permanent constraints describe unchanging attributes of the devices. For instance, if an input tray can only accommodate 200 sheets, a large job will be parsed into job segments, each of which contains no more than 200 sheets. Notwithstanding upgrades, permanent constraints never change.

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Temporary constraints indicate temporary disturbances in a device's ability to perform its allocated task. For instance, a printer can run out of paper or toner, or misfeed a sheet. A stapling finisher can run out of staples. These temporary constraints are only problems until a user attends to them. The present application contemplates responding to these temporary constraints in a manner that will disrupt the overall job the least. This feature may be found in the specification, for example, on page 14, lines 1-3, that a print and finishing process is managed in accordance with availability of specified printers and finishers.

Additionally, on page 16, middle paragraph, permanent and temporary constraints are explained. Discussion of how the constraints are implemented can be found on page 29, beginning at line 3. In sum, the various constraints define what printing and finishing threads are available for the current job. In an illustrative example, both finisher 1 and finisher 2 are capable of stapling. Finisher 1 reports to the database that it is out of staples. The system re-routes job segments from finisher 1 to finisher 2 until the deficiency can be remedied. This example, as well as others, is embodied in claim 1 as conforming to the capability and temporary constraint attributes. Nowhere does Matsuo fairly suggest conforming a finishing job to these constraints. It is therefore respectfully submitted that **claim 1 as well as claims 2-11, 36 and 37** dependent therefrom now distinguish patentably and unobviously over the references of record.

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CONCLUSION

For the reasons detailed above, it is respectfully submitted all claims remaining in the application (Claims 1-11, 36 and 37) are now in condition for allowance. In the event that the Examiner considers personal contact advantageous to the disposition of this case, she should feel free to call Pat Roche, at telephone number (216) 861-5582.

Respectfully submitted,

FAY, SHARPE, FAGAN,
MINNICH & MCKEE, LLP

Date

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Patrick R. Roche

Patrick R. Roche, Reg. No. 29,580
1100 Superior Avenue, Seventh Floor
Cleveland, OH 44114-2579
216-861-5582

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